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SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
06/247,656	03/26/81	LUNDAK R	2307U-107

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EXAMINER	
TARCZA, J	
ART UNIT	**PAPER NUMBER**
172	2

DATE MAILED: MAY 12 1982

This is a communication from the examiner in charge of your application.

COMMISSIONER OF PATENTS AND TRADEMARKS

[X] This application has been examined. [ ] Responsive to communication filed on _____ [ ] This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), _____ days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. [X] Notice of References Cited by Examiner, PTO-892
2. [ ] Notice of Informal Patent Drawing, PTO-948
3. [ ] Notice of References Cited by Applicant, PTO-1449
4. [ ] Notice of Informal Patent Application, Form PTO-152
5. [ ] _____

Part II SUMMARY OF ACTION

1. [X] Claims 1-3 are pending in the application.
   Of the above, claims _____ are withdrawn from consideration.
2. [ ] Claims _____ have been cancelled.
3. [ ] Claims _____ are allowed.
4. [X] Claims 1-3 are rejected.
5. [ ] Claims _____ are objected to.
6. [ ] Claims _____ are subject to restriction or election requirement.
7. [ ] The formal drawings filed on _____ are acceptable.
8. [ ] The drawing correction request filed on _____ has been [ ] approved. [ ] disapproved.
9. [ ] Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has
   [ ] been received. [ ] not been received. [ ] been filed in parent application, serial no. _____,
   filed on _____.
10. [ ] Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
11. [ ] Other

The disclosure is objected to as not being complete as required by the first paragraph of 35 U.S.C. 112. The specification is incomplete in failing to identify the related application. It appears as though applicant is refering to 247,652. The disclosure is incomplete in failing to identify the deposit numbers cell lines W1-L2, UC 729-6, and W1-L2-729F. Further it is not clear if the deposited strains meet the criteria of M.P.E.P. 608.01(p) as to permanence and availability.

Claims 1-3 are rejected under 35 U.S.C. 112, first paragraph, for the reasons set forth in the preceding paragraph. This statutes requires that the specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The claims are based upon a disclosure which is not enabling. See the paragraph above.

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as his invention as required by this statute.

Claim 3 is indefinite in the recitation

specification, it appears a secreted growth factor is added to the media by this step. However, the term "conditioned" could also imply removal of one or more factor.

Claims 1 and 2 are rejected under 35 U.S.C. 103 as being unpatentable over Levy et al taken in view of Croce et al, Ham et al and Iscove et al. Although, the invention is not identically disclosed or described as set forth in section 102 of title 35, the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Levy et al teach the parent strain. Croce et al teach mutating human B cells and selecting HAT sensitive mutants which can be later fused with human lymphocytes to produce a hybridoma. Ham et al teach a general method of modifying culture medium to make a cell line less dependent on fetal calf serum and the usefulness of insulin as a growth promoter. Iscove et al teach providing a serum free medium for culturing B cells. It would be obvious to modify the Levy et al cell line to make it HAT sensitive according to the Croce et al process to make a cell line suitable for fusing with human lymphocytes. It would also be obvious to modify any cell line according to Ham et al to make that cell line less dependent on fetal calf serum. Since Iscove et al teach a medium for growing B cells, it would be an obvious design choice to adjust the Ham et al process to grow on medium

would be obvious to him. The advantages of reducing or eliminating an expensive and non-reproducable component would be known to one of ordinary skill in the art, and likewise it would be obvious to do so to achieve these advantages.

Claim 3 is rejected under 35 U.S.C. 103 recited above as being unpatentable over Ham et al taken in view of Kohler et al and Iscove et al.

Ham et al teach reducing a cell line's dependance on fetal calf serum by slowly replacing serum with specific components. Kohler et al teach using a HAT sensitive myeloma cell line for cell fusion. Iscove et al teach using their media for growing B lymphocytes. It would be obvious to employ the Ham et al method to the cells of Kohler et al to produce a cell line less dependant on serum. Since Iscove et al teach growing B lymphocytes in their medium it would be obvious to adjust the Ham et al process media through the addition of supplements similar to those of Iscove et al to produce a cell line which is less dependent on fetal calf serum. Cloning cells and screening the resultant clones for a desired trait is a conventional technique. In the absence of unexpected results, the combination of two different procedures performed consecutively on the same cell line to produce two different desired traits in the same cell line is not seen to constitute an unobvious method.

Litwin is cited to show the conventional nature of adding insulin and secreted cell growth factors to cell culture medium.